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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,978	03/13/2001	Shinichi Takeda	837.1964/JDH	9367

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EXAMINER

HUGHES, DEANDRA M

ART UNIT PAPER NUMBER

3663

DATE MAILED: 01/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/803,978

Applicant(s)

TAKEDA ET AL.

Examiner

Deandra M Hughes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 11, 12, 14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13 and 16-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 31 December 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant indicates in the Remarks that claims 10-15 were withdrawn from consideration. Only claims 11-12 and 14-15 are withdrawn from consideration. Claims 10 and 13 were rejected in the previous office action (see section #3). Further, claims 10 and 13 are generic claims and consequently cannot be withdrawn (see Election requirement, paper #3, Jul. 11, 2002, section #1).

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-2, 7-10, 13, 16, 19, and 25 are rejected under 35 U.S.C. 102(a) as being anticipated by Watanabe (US 2001/0021288 A1). Watanabe discloses the following.

With regard to claims 1 and 7,

- providing a waveform shaper (fig. 8, #8) for waveform shaping input signal light (fig. 8, λ_s) and outputting signal light (fig. 8, λ_1);
- measuring quality of said output signal light (fig. 8, #26);
- controlling the power of the input signal light (fig. 8, #20) so that said quality measured is improved (pg. 4, paragraph [0064])

With regard to claims 2 and 8-9, said controlling step comprises the steps for providing an optical amplifier for amplifying said input signal light and a controller for

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adjusting the gain of the said optical amplifier and an optical attenuator for attenuating the output from said optical amplifier.

With regard to claims 10 and 13, a waveform-shaping device controlled by a variable threshold is disclosed (pg. 4, paragraphs [0063] through [0067]).

With regard to claim 16, Watanabe discloses that the input signal is a WDM signal (e.g. [0163]).

4. Claims 1-9, 16-20, and 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Hansen (US 6,323,993). Hansen discloses the following:

- providing a waveform shaper (#110) for waveform shaping input signal light (source) and outputting signal light;
- measuring quality of said output signal light (col. 3, line 60 to col. 4 line 12);
- controlling the power of the input signal light (col. 3).

With regard to claim 16, Hansen discloses that the input signal is a WDMed signal (e.g. col. 3, line 44).

With regard to claims 19 and 25, see fig. 5, #435 (optical spectrum analyzer).

With regard to claims 20 and 26, please see figs. 6 & 7 insets for eye-openings.

Claim Rejections - 35 USC § 103

5. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otterbach (US 5,959,766).

Otterbach does not specifically disclose an amplifier that amplifies a first signal to produce a second signal. However, Otterbach teaches "intermediate amplifiers in which

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the optical signals are amplified.” (see fig. 1, and col. 2, lines 45-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to insert an amplifier before the attenuator (DG) in fig. 2 for the advantage of amplifying the intermediate optical signal.

Further, Otterbach discloses:

- an attenuator (DG) that attenuates the ‘second’ signal to produce a ‘third’ signal
- an optical regenerator (EDFA) that shapes a waveform (via amplification) of the ‘third’ signal to produce a ‘fourth’ signal
- a quality monitor that measures a quality of the ‘fourth’ signal (OE1 and OE2)
- a controller that controls the attenuator (CTRL).

Response to Arguments

6. Applicant's arguments filed 12/31/02 have been fully considered but they are not persuasive.

Applicant argues the following.

- A. With regard to independent claims 1 and 7, Applicant argues “Hansen does not describe selecting a quality measure that obtains a quality measurement of said output signal light from one of a Q factor, a bit error rate, a spectrum shape, or an eye opening as recited in claim 1.” (pg. 5, 5th paragraph). Applicant also argues that the same argument applies to independent claim 7. (pg. 5, 6th paragraph).

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B. With regard to claims 1-2 and 7-9, Watanabe is not prior art because the priority date (Jul. 4, 2000) of the current application precedes the filing date of Watanabe (Feb. 15, 2001). (pg. 6, 1st paragraph).

C. With regard to claims 1-2 and 7-9, applicant argues that "Watanabe does not describe selecting a quality measure that obtains a quality measurement of said output signal light from one of a Q factor, a bit error rate, a spectrum shape, or an eye opening..." (pg. 6, lines 10-13).

With regard to argument A, Hansen teaches obtaining a quality measurement from one of a Q factor or a bit error rate (figs. 6 & 7 or cols. 3-4 lines 65-68 and lines 1-3).

With regard to argument B, the rejection stands until foreign priority is perfected (i.e., an English translation of the foreign application is filed).

With regard to argument C, upon further consideration of the reference, the Examiner has found that Watanabe discloses a quality measure based on spectrum shape (see pg. 7, [0103], 'according to the bit rate or pulse shape of the signal light').

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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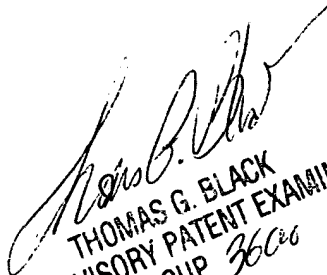
TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deandra M Hughes whose telephone number is 703-306-4175. The examiner can normally be reached on M-F, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-9707. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

DMH
January 13, 2003


THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 3663